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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,686	09/25/2003	Wai Man Yuen	412746	8385
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DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A

Office Action Summary	Application No. 10/670,686	Applicant(s) YUEN ET AL.	
	Examiner Leo T. Hinze	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 29-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 29-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2854

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-26 and 29-36 in the reply filed on 17 April 2006 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-26, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guyett et al., US 6,310,833 (hereafter Guyett) in view of Mozer et al., US 6,665,639 B2 (hereafter Mozer) and Korfin et al., US 20020095294 A1 (hereafter Korfin).

Art Unit: 2854

a. Regarding claims 1 and 16:

Guyett teaches an alarm clock system, comprising: a microphone (26, Fig. 1) for sensing sound; and at least one processor for processing the sound (10, Fig. 1) to determine voice commands, and for generating an alarm signal based on the voice commands (Fig. 10; col. 16, l. 48 - col. 17, l. 34).

Guyett does not teach a remotely operable microphone; at least one processor to determine voice commands preselected by a user for association with a specific alarm function, the processor initiating the specific alarm function upon determining the user-selected voice command.

Mozer teaches a speech recognition apparatus, including that watches utilizes speech recognition (col. 3, ll. 36-37), and that it is advantageous to include a small amount of programmable, non-volatile memory for use in storing user-selectable commands (col. 3, ll. 46-50), which may be useful in allowing a user of a non-included language to operate the watch by voice command (col. 3, l. 42).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Mozer to include a small amount of memory that would allow the at least one processor to determine voice commands preselected by a user for association with a specific alarm function, thereby initiating the specific alarm function upon determining the user-selected voice command, because Mozer teaches that this capability is advantageous for allowing users who speak a non-included language to operate a device by voice command.

Art Unit: 2854

Korfin teaches a voice user interface for controlling a device, including a microphone built in to the device, attached with a wire, or wirelessly connected (§ 0033).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Guyett to include either a wired or wireless remote microphone as taught by Korfin, because a person having ordinary skill in the art would recognize that such a microphone would increase the functionality and therefore the commercial desirability and profitability of the alarm clock by allowing the user more freedom and flexibility to program and control the alarm clock from locations remote from the alarm clock.

b. Regarding claim 2, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 1 above. Guyett also teaches a real time clock (34, Fig. 1) for tracking time for the alarm clock system, the alarm signal being generated at a time of the real time clock.

c. Regarding claims 3 and 17, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claims 1 and 16 above. Guyett also teaches a speaker (42, Fig. 1) responsive to the alarm signal to generate audible sound (col. 7, ll. 41-42).

d. Regarding claims 4 and 18, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claims 1 and 16 above. Guyett also teaches a radio for generating at least one of music and news as the audible sound ("a radio," col. 5, l. 51; 120, Fig. 3"training).

Art Unit: 2854

e. Regarding claim 5, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 1 above. Guyett also teaches a battery for powering the system (24, Fig. 1).

f. Regarding claim 6, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 1 above. Guyett also teaches a modular housing for encasing and protecting the processor (chips in processor 10 inherently have housings that protect the circuits contained therein, Fig. 1), and a communications link between the housing and the microphone (Fig. 1 showing microphone 26 connected to 32).

g. Regarding claim 7, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 6 above. Korfin, as combined above, also teaches the communications link comprising an electronic wire for positioning the microphone remotely from the housing ("wired to it with a cable," ¶ 33).

h. Regarding claim 8, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 6 above. Korfin, as combined above, also teaches the communications link comprising a wireless relay for positioning the microphone remotely from the housing ("wireless microphone," ¶ 33).

i. Regarding claim 9, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 1 above. Guyett also teaches a speech synthesis processor (32, Fig. 1) to recognize voice data.

j. Regarding claims 10 and 20, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claims 9 and 16 above. Guyett also teaches the

Art Unit: 2854

processor being configurable to initial programming, to identify audible words as voice commands after the initial programming and electronically processing comprising processing the sound and comparing the processed sound to stored data from a learning sequence (“training program,” col. 10, l. 66).

k. Regarding claim 11, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 10 above. Guyett also teaches memory (50, Fig. 1) for storing digital data representative of the voice commands.

l. Regarding claim 12, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 10 above. The combination also teaches a wireless transmitter for communicating the specific alarm function to a remote electronic device. The wireless microphone of Korfin (“wireless microphone,” ¶ 33) transmits the spoken words activating the setting of the alarm function to the remote electronic device of Guyett that results from the combination with the wireless microphone, and which contains the circuitry to set the alarm.

m. Regarding claim 13, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 12 above. Guyett also teaches an electronic device having a wireless receiver and comprising a radio (the radio wirelessly receives the radio waves, 120, 122, Fig. 3).

n. Regarding claim 14, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 1 above. Guyett also teaches a display (36, Fig. 1) capable of showing time and date information. While Guyett does not teach display of a date,

Art Unit: 2854

because the display of Guyett is capable of displaying numerals that denote time information, the display is also capable of displaying numerals that denote date information.

o. Regarding claim 15, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 1 above. Guyett also teaches an A/D converter for digitizing the sound for the processor (32, Fig. 1 inherently contains an A/D converter for converting the analog signal from the microphone to the digital domain for storage in memory 50 and further processing by processor 10).

p. Regarding claim 19, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 16 above. Korfin, as combined above, also teaches sensing sound comprising sensing sound at a location remote from the step of processing the sound (“wireless microphone,” ¶ 33).

q. Regarding claim 21, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 16 above. The combination, as combined above, also teaches generating an alarm comprising the step of generating a wireless signal to a remote electronic device. The wireless signal from the microphone of Korfin (“wireless microphone,” ¶ 33) is used to set the alarm on the remote electronic device of Guyett that results from the combination with the wireless microphone, and which contains the circuitry to set the alarm.

r. Regarding claim 22, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 21 above. The combination, as combined above, also teaches activating the electronic device upon receipt of the wireless signal (the alarm is activated when the alarm signal is received from the wireless microphone of Korfin).

Art Unit: 2854

s. Regarding claim 23, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 16 above. Guyett also teaches the step of initiating the step of processing the sound by detecting an initializing audible voice command (col. 6, l. 61 - col. 7, l. 5).

t. Regarding claims 24 and 26:

The combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claims 23 and 25 above. Mozer teaches a memory to allow a user to supply her own voice commands (col. 3, ll. 46-50).

The combination of Guyett, Mozer and Korfin does not teach wherein the voice commands are "Voice command" and "Manual setting."

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to additionally modify Guyett to respond to the commands "voice command" and "manual setting," and because a person having ordinary skill in the art at the time the invention was made would recognize that they could make the clock respond to any appropriate words that would convey to the user the import of said words with respect to the subsequent action of the voice recognition system and alarm clock, including, but not limited to, "Voice command" and "Manual setting."

u. Regarding claim 25, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 23 above. Guyett also teaches stopping the step of processing the sound by detecting a terminating audible voice command. As the absence of

Art Unit: 2854

sound would mean the absence of anything to process, the processor 10 of Guyett would naturally stop processing sound after the voice commands terminate.

v. Regarding claim 37, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 1 above. Guyett also teaches the specific alarm function comprises setting an alarm (“alarms set to a wake-up time,” col. 11, ll. 44-45).

w. Regarding claim 38, the combination of Guyett, Mozer and Korfin teaches all that is claimed as discussed in the rejection of claim 1 above. The combination also teaches the specific alarm function comprising wirelessly transmitting a signal to the electronic device, to turn the electronic device on or off (Guyett, col. 5, l. 54, “turning the radio on and off”).

5. Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guyett in view of Mozer.

a. Regarding claim 29:

Guyett teaches a process for setting date and time of an alarm clock system through voice-control, comprising the steps of: sensing engagement of a button (48, Fig. 5) of the alarm clock system, the button being designated, at least in part, for setting date and time; if the button is engaged, automatically and sequentially sensing and storing audible sounds emanating from the user, the audible sounds comprising a plurality of (1) AM or PM, (2) hour of the day, (3) minute of the day, (4) year, (5) month, and (6) day; and automatically setting the date and time within the alarm clock system based on the audible sounds (Fig. 9; col. 15, l. 37-col. 16, l. 47). While Guyett does not teach displaying date information, Guyett does teach displaying AM or

Art Unit: 2854

PM and hour of the day, and therefore satisfies the requirement of displaying a “plurality of” the claimed elements.

Guyett does not teach prompting the user to generate user-selected audible sounds for use in setting date and time; storing user-selected sounds as voice commands.

Mozer teaches a speech recognition apparatus, including that watches utilizes speech recognition (col. 3, ll. 36-37), and that it is advantageous to include a small amount of programmable, non-volatile memory for use in storing user-selectable commands (col. 3, ll. 46-50), which may be useful in allowing a user of a non-included language to operate the watch by voice command (col. 3, l. 42).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Mozer to include a small amount of memory that would allow the at least one processor to determine voice commands preselected by a user for association with a specific alarm function, thereby allowing the user to generate user-selected audible sounds for use in setting date and time, because Mozer teaches that this capability is advantageous for allowing users who speak a non-included language to operate a device by voice command.

b. Regarding claim 30, the combination of Guyett and Mozer teaches all that is claimed as discussed in the rejection of claim 29 above. Guyett also teaches automatically and sequentially sensing and storing (col. 15, ll. 49-58) comprising providing a delay interval (“computer progresses to block 276 and makes a beep... returns to block 266... process is repeated,” col. 15, ll. 58-63) between successive audible sounds. There is an inherent delay as the computer processes the sound and progresses to the next step.

Art Unit: 2854

c. Regarding claims 31 and 32:

The combination of Guyett and Mozer teaches all that is claimed as discussed in the rejection of claim 30 above.

The combination of Guyett and Mozer does not teach delay interval being at least four seconds or eight seconds.

It has been held that mere optimization of ranges is generally not sufficient to patentably distinguish an invention over the prior art. See MPEP § 2144.05 (II).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Guyett such that the delay interval between successive audible sounds was four or eight seconds, because a person having ordinary skill would easily arrive at these intervals in their experimentation to determine the best interval that optimizes the speed of programming which does not annoy the user, with the delay necessary to allow the computer to process the sounds and ensure that they are recognized and stored by the processor.

6. Claims 33 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guyett in view of Hoffman, US 4,670,864 (hereafter Hoffman).

a. Regarding claim 33:

Guyett teaches a process for setting an alarm for an alarm clock system through voice-control, comprising the steps of: sensing engagement of a button (48, Fig. 5) of the alarm clock system, the button being designated, at least in part, for setting an alarm; once the button is engaged, sensing and storing audible sounds emanating from the user; and automating alarm

Art Unit: 2854

functions of the alarm clock system based on future use of the audible sounds (Figs. 8, 10; col. 16, l. 48 - col. 17, l. 26).

Guyett does not teach a snooze function.

Hoffman teaches a clock with a voice interruptible alarm device, including a snooze function (col. 1, ll. 5-14), that allows the alarm to be either interrupted for a short time or shut off by an acoustic signal formed by the human voice.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Guyett to include a snooze function and circuitry to set the snooze function through voice control, Hoffman teaches that this ability allows a user to activate a snooze function using voice control.

b. Regarding claim 39:

Guyett teaches a method for generating an alarm, comprising the steps of: automatically sensing sound through a microphone (26, Fig. 1); electronically processing the sound to determine one or more first voice commands (10, Fig. 1); generating an alarm at a time set by the voice commands (Fig. 10; col. 16, l. 48 - col. 17, l. 34).

Guyett does not teach automatically sensing sound through the microphone while the alarm is playing; electronically processing the sound to filter out the alarm sound and determine a second voice command; temporarily suspending the alarm as a function of the second voice command; and re-starting the alarm after a pre-determined period of time without a voice command.

Art Unit: 2854

Hoffman teaches a clock with a voice interruptible alarm device, including a snooze function (col. 1, ll. 5-14), that allows the alarm to be either interrupted for a short time or shut off by an acoustic signal formed by the human voice. Hoffman teaches filtering out the alarm sound to determine a voice command ("frequencies that lie outside the frequency range of the fundamental tone of the human voice cannot interrupt or shut off the alarm signal," col. 2, ll. 46-49).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Guyett to include a snooze function and circuitry to set the snooze function through voice control, Hoffman teaches that this ability allows a user to activate a snooze function using voice control.

7. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guyett in view of Hoffman and Shimizu, US 4,876,676 (hereafter Shimizu).

a. Regarding claim 34

Guyett teaches a process of default programming in an alarm clock system through voice-control, comprising the steps of: entering a learning mode of the alarm clock system (Fig. 7); prompting the user to speak one word of a sequence of words (188, Fig. 7); capturing and storing audible sounds corresponding to the user's speech of the one word (190, Fig. 7); if additional words exist in the sequence of words, repeating steps (2) and (3) to sense and store audible sounds of every other word in the sequence of words (210, Fig. 7); exiting the learning mode; and responding to the audible sounds corresponding to one or more of the sequence of words to

Art Unit: 2854.

set time, date and to initiate automatic action within and by the alarm clock system (col. 1, ll. 8-12).

Guyett does not teach a snooze function or ability to set the date.

Hoffman teaches a clock with a voice interruptible alarm device, including a snooze function (col. 1, ll. 5-14), that allows the alarm to be either interrupted for a short time or shut off by an acoustic signal formed by the human voice.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Guyett to include a snooze function and circuitry to set the snooze function through voice control, Hoffman teaches that this ability allows a user to activate a snooze function using voice control.

Shimizu teaches a voice recognizing alarm timepiece that includes ability set a date (col. 2, ll. 33-34).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Guyett to include the ability to set a date as taught in Shimizu, because a person having ordinary skill in the art would recognize that such an ability would advantageously increase the functionality of a timepiece, thereby making it more desirable to consumers.

b. Regarding claim 35, Guyett teaches all that is claimed as discussed in the rejection of claim 34 above. Guyett also teaches the sequence of words comprising one or more of the following: 0, 1, 2, 3, 4, 5, . . . 10, 11 (col. 11, ll. 30-38).

Art Unit: 2854

c. Regarding claim 36, Guyett teaches all that is claimed as discussed in the rejection of claim 34 above. Guyett also teaches prompting comprising one or both of (a) displaying information on a display of the alarm clock system (“flash the location of the next digit,” col. 15, l. 59) and (b) electronically synthesizing human speech encouraging the user to speak (266, Fig. 9).

Response to Arguments

8. Applicant's arguments with respect to claims 1-33 and 35-39 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments, with respect to the rejection(s) of claim(s) 34, regarding Guyett's lack of teaching of setting a date, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the prior art as applied above.

10. Applicant argues on p. 10 that Guyett teaches away from the proposed combinations above, citing the following passage in Guyett:

More elaborate real-time voice recognition and synthesized speech requires huge amounts of computational power and memory such that presently available synthesis and recognition systems have been far too expensive to consider for clocks, clock radios and the like. (col. 3, ll. 18-22).

While this passage may teach that voice recognition systems are expensive and economically unfeasible, the passage teaches that a combination of a voice recognition system and a voice-activated alarm clock is possible. Therefore, this passage does not show that Guyett teaches away from the combinations as set forth in the rejections above.

Art Unit: 2854

11. Applicant arguments on pp. 12-13 that Guyett does not teach the elements of claims 23 and 25 are unpersuasive.

a. Regarding claim 23, the applicant appears to be arguing limitations not in the claim. As the examiner interprets claim 23, the claim recites that sound is processed once an audible command is heard. This is how the device of Guyett operates, as discussed in the rejection of claim 23 above. Because a processor must process *all* sounds to determine if the sound is a command that requires action, *every* audible command is a command that initiates processing of sound.

b. Regarding claim 25, the applicant appears to be arguing limitations not in the claim. As the examiner interprets claim 25, the claim recites that after processing the sounds from the terminating voice command, processing terminates until the next sound is received. That is, *every* sound received by the processor must be processed to determine if the sound is a command that requires action. After processing a sound the processor ceases processing until the next sound is received. The examiner gives the broad reasonable interpretation to “terminating audible voice command” as any command after which processing of sound terminates.

Conclusion

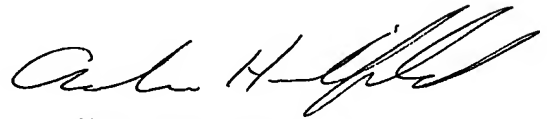
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is (571) 272-2167. The examiner can normally be reached on M-F 8:00-4:30.

Art Unit: 2854

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo T. Hinze
Patent Examiner
AU 2854
26 June 2006



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